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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,711	12/20/2000	Ben Smeets	47253-00017USPX	9096

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EXAMINER	
DO, CHAT C	

ART UNIT	PAPER NUMBER
2124	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/742,711	SMEETS, BEN	
	Examiner	Art Unit	
	Chat C. Do	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because the abstract has the legal phraseology such as "means" throughout. Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claims 1-5, 7, and 11-15 are objected to because of the following informalities:

Re claims 1, 4-5, 7, 11, and 14-15, the applicant is advised to remove the index symbol "." in these claims.

Re claims 2-3 and 12-13, the phrase "value/signal" should replace as "value or signal" for clarification.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 1, they are mis-descriptive by the limitations "sequence generator **adapted** to output" in line 3 and "selection system **adapted** to select" in line 5 because the outputs of sequence generator or the selection system do not depend on any feedback but it depends on the step control (S_t) or a selected value (M_t) respectively as disclosed in the specification and drawings. In order to be an adapted system, the generator or the system must depend directly or non-directly on a feedback. For examination purposes, the examiner considers the limitation as "sequence generator to output" in line 3 and "selection system to select" in line 5. Claim 11 has the same problem.

Thus, claims 2-10 and 12-19 are also rejected for being dependent on the rejected base claims 1 and 11 respectively.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3 and 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Currie (U.S. 5,974,433).

Re claim 1, Currie discloses in Figure 3 an electrical device for generating multi-rate PN sequence (abstract discloses a high speed random sequence generator) comprising: sequence generation means (307 wherein all the mux(es) output sequences of values) to output a plurality sequence values (e.g. outputs of 309 into 310) based of a step control signal (St) (output of 306 into 307), selection means (e.g. 310 wherein it selects either output of 309A or 309B) to select one of plurality of sequence values on the basis of a select value (Mt) (e.g. signal from 306 into 310), and step control means adapted (300) provide step control signal (e.g. signal from 306 into 310).

Re claim 2, Currie further discloses in Figure 3 the select value (Mt) provided on the basis a clock control value or signal (Ct) (300 wherein clock is inputted into 306 for controlling selection control signals 304 and 305) and a previously generated select value (e.g. M_t as input into 301, M_{t-1} as input into 305, and M_{t-2} as input into 304).

Re claim 3, Currie further discloses in Figure 3 step control signal (S_t) (output of 306 into 307) is provided based on a clock control value/signal (C_t) (300 wherein clock is inputted into 306 for controlling selection control signals 304 and 305) is provided based on a clock control value/signal (C_t) and a previously generated selected value (M_{t-1}) (e.g. M_t as input into 301, M_{t-1} as input into 305, and M_{t-2} as input into 304).

Re claim 11, it is a method claim of claim 1. Thus, claim 11 is also rejected under the same rationale as cited in the rejection claim 1.

Re claim 12, it is a method claim of claim 2. Thus, claim 12 is also rejected under the same rationale as cited in the rejection claim 2.

Re claim 13, it is a method claim of claim 3. Thus, claim 13 is also rejected under the same rationale as cited in the rejection claim 3.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being obvious over Currie (U.S. 5,974,433) in view of Smeets et al. ("Windmill pn-sequence generators").

Re claim 6, Currie does not disclose the sequence electrical device further comprising a windmill polynomial generator. However, Smeets et al. disclose the windmill polynomial generator (abstract lines 1-5) as a high speed sequence generator capable of producing blocks of consecutive symbols in parallel. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention is made to add a windmill generator as seen in Smeets et al.'s invention in place of sequence generator as seen in Currie's invention because it would enable to increase the output of pseudo random noise sequence (abstract line 1) by having high speed sequence generator.

Re claim 16, it is a method claim of claim 6. Thus, claim 16 is also rejected under the same rationale as cited in the rejection claim 6.

10. Claims 8-10 and 17-19 are rejected under 35 U.S.C. 103(a) as being obvious over Currie (U.S. 5,974,433) in view of Saints et al. (U.S. 6,430,170).

Re claims 8-10, Currie does not disclose sequence electrical device is used in a portable device as a mobile telephone in a stationary communication. However, Saints et al. disclose in Figure 1 sequence electrical device is used in a portable device as a mobile telephone in a stationary communication (abstract). Therefore, it would have been obvious application to a person having ordinary skill in the art at the time the invention is made to used the sequence electrical device in a portable device as a mobile telephone in a stationary communication as seen in Saints et al.'s invention into Currie's invention because it would enable to increase the security in communication by increasing randomness in sequence (col. 1 lines 40-48).

Re claim 17, it is a method claim of claim 8. Thus, claim 17 is also rejected under the same rationale as cited in the rejection claim 8.

Re claim 18, it is a method claim of claim 9. Thus, claim 18 is also rejected under the same rationale as cited in the rejection claim 9.

Re claim 19, it is a method claim of claim 10. Thus, claim 19 is also rejected under the same rationale as cited in the rejection claim 10.

Allowable Subject Matter

11. Claims 4-5, 7, and 14-15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. U.S. Patent No. 5,251,165 to James discloses a two phase random number generator.

b. U.S. Patent No. 4,341,925 to Doland discloses a random digital encryption secure communication system.

c. U.S. Patent No. 6,282,230 to Brown et al. disclose a block pseudo-noise generating circuit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (703) 305-5655. The examiner can normally be reached on M => F from 7:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (703).305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do
Examiner
Art Unit 2124

June 22, 2004

ANIL KHATRI
PRIMARY EXAMINER